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PATENT

Atty Docket No.: 10007518-1

App. Ser. No.: 10/057,586

IN THE CLAIMS:

Please find below a listing of all of the pending claims. The statuses of the claims are set forth in parentheses.

1. (Currently Amended) An apparatus for calibrating an image output device, comprising:

a test pattern generator for generating a test pattern including a dynamic test patch area and a grating area, the test pattern supplied to the image output device, which outputs the test pattern; and

an image input device for creating an image of the outputted test pattern and inputting the image created by the image input device into the test pattern generator,

the test pattern generator using the image created by the image input device to adjust an intensity level of said dynamic test patch area to match an average intensity level of said grating area in the test pattern.

2. (Previously Presented) The apparatus of claim 1 wherein said test pattern further includes a fixed level area.

3. (Previously Presented) The apparatus of claim 1 wherein said test pattern generator sets said intensity level of said grating area and adjusts said intensity level of said dynamic test patch area by setting pixel values of said grating area and said dynamic test patch areas.

4. (Original) The apparatus of claim 1 wherein said dynamic test patch area comprises a plurality of pixels of substantially equal intensity levels and said grating area comprises at least two groups of pixels, each group having a different, predetermined intensity level.

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5. (Original) The apparatus of claim 4 wherein each of said two groups of pixels of said grating area are set to respective predetermined pixel values associated with said predetermined intensity levels.
6. (Original) The apparatus of claim 1 wherein said dynamic test patch area comprises an area of uniform pixel value and said grating area comprises a plurality of lines of pixels, a number of said lines of pixels having a first value and a second number of said lines of pixels having a second value different from said first value.
7. (Original) The apparatus of claim 6 wherein said test pattern generator is configured to control said uniform pixel value of said dynamic test patch area to adjust said intensity level of said dynamic test patch to be equal to said average intensity level of said grating area.
8. (Currently Amended) The apparatus of claim 1 wherein said test pattern generator is operable to ~~can~~ associate a plurality of pixel values with corresponding pixel intensities, said grating area comprising pixels having a combination of at least two of said plurality of pixel values.
9. (Currently Amended) The apparatus of claim 8 wherein said combination of at least two of said plurality of pixel values results in a new average intensity level of said grating area whereby said test pattern generator is configured to adjust pixel values of said dynamic test patch area to approximate said new average intensity level.

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10. (Currently Amended) The apparatus of claim 1 wherein said test pattern generator is operable to can adjust said level of said dynamic test patch area to match a plurality of predetermined average intensity levels of said grating area.
11. (Original) The apparatus of claim 10 further comprising a gamma corrector responsive to said test pattern generator to map a plurality of pixel values to corresponding pixel intensity levels.
12. (Previously Presented) The apparatus of claim 1 wherein said image output device includes a video monitor and said image input device comprises a video camera.
13. (Previously Presented) The apparatus of claim 1 wherein said test pattern generator can adjust an intensity level of said fixed level area to maintain a predetermined average intensity level of the output device.
14. (Original) The apparatus of claim 1 wherein said test pattern generator additionally has an output of a fixed level area and said dynamic test patch, grating and fixed level areas comprise areas displayed on a video display, said dynamic test patch and grating areas comprising areas of said video display substantially smaller than and located at a periphery of said fixed level area.
15. (Original) The apparatus of claim 1 wherein said image output device includes a printer and said image input device comprises an optical scanning device.

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16. (Previously Presented) The apparatus of claim 1 wherein said test pattern additionally has an output of fixed level area and said dynamic test patch, grating and fixed level areas comprise areas printed on a medium, said dynamic test patch and grating areas comprising printed areas of said medium substantially smaller than and located at a periphery of said fixed level area.

17. (Currently Amended) A method of calibrating an output of an image output device, comprising:

generating a test pattern including a grating area and a dynamic test patch area;[[,]]

setting a configuration of pixels within said grating area to first and second predetermined pixel levels;

outputting the test pattern;

creating an image of the outputted test pattern;

inputting the image of the outputted test pattern into the test pattern generator; and

adjusting a value of pixels within said dynamic test patch area to match an intensity level of said dynamic test patch area to an average intensity level of said grating area

18. (Currently Amended) The method of claim 17 wherein ~~said step of~~ generating a test pattern further includes generating a fixed level area, said grating area and dynamic test patch area comprising smaller areas than, and embedded in, said fixed level area.

19. (Currently Amended) The method of claim 17 further comprising repeating ~~said steps of~~ setting and adjusting to provide a gamma correction value.

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20. (Currently Amended) The method of claim 17 wherein ~~said step of adjusting a value of~~ pixels includes ~~a step of~~ measuring an average pixel illumination level of said grating area and a pixel illumination level of said dynamic test patch area.

21. (Currently Amended) The method of claim 17 wherein ~~said step of~~ generating a test pattern includes supplying a video signal to a video display.

22. (Currently Amended) An apparatus for calibrating an output of an image output device[[,]] comprising:

detector means for ~~imag[[e]]ing~~ the output of the image output device and inputting the image of the output of the image output device to a test pattern generator; and

test pattern generator means for providing a test pattern to said image output device, the test pattern including dynamic test patch, grating and fixed level areas, said test pattern generator means responsive to said detector means for adjusting an intensity level of said dynamic test patch area to match an average intensity level of said grating area.